

CLAIMS

1. Portable object (1) of type smartcard, comprising:
  - a microcontroller (30) comprising an efficient part ( $\mu$ CE) to carry out data processing;
  - a contact stud (VCC) to supply the said microcontroller (30) with current;
  - a data input and/or output contact stud (I/O);
  - confidential information;characterised in that the portable object also includes:
  - an interface circuit (GEN, CAP, COM) through which the efficient part ( $\mu$ CE) receives a supply voltage ( $V_{\mu}$ CE), the said interface circuit (GEN, CAP, COM) being designed to vary the supply voltage of the efficient data processing part ( $\mu$ CE) in order to secure the said confidential data against current attacks.
- 15 2. Portable object of type smartcard according to claim 1 characterised in that the interface circuit includes:
  - a switch (COM) between the said contact stud (VCC) and a supply terminal of the efficient data processing part ( $\mu$ CE);
  - a capacitor (CAP) connected between the said supply terminal of the efficient part of the microcontroller ( $\mu$ CE) and another supply terminal of the efficient part ( $\mu$ CE).
- 20 3. Portable object of type smartcard according to claim 2 characterised in that the interface circuit includes a pulse generator (GEN) to control the switch (COM) in a desynchronised manner with respect to the said data processing.
- 25 4. Portable object of type smartcard according to claim 2 or claim 3 characterised in that the capacitor has a capacitance greater than 1 nanofarad.

5. Portable object of type smartcard according to claim 1 characterised in that the microcontroller comprises a main layer (301) of silicon whose active face, which comprises a circuit and supports the contact studs (300), is sealed to an additional protective layer (302) 5 using a sealing layer (303).

6. Portable object of type smartcard according to claim 5 characterised in that the said interface circuit (COM, GEN, CAP) is located in the additional protective layer (302).

7. Microcontroller (30) intended to be incorporated in a portable 10 object (1) of type smartcard, comprising:

- a contact stud (VCC) to supply the said microcontroller (30) with current;
- a data input and/or output contact stud (I/O);
- an efficient part ( $\mu$ CE) to carry out data processing;
- confidential information;

15 characterised in that an interface circuit (COM, GEN, CAP) through which the efficient part ( $\mu$ CE) receives a supply voltage ( $V_{\mu}$ CE), the said interface circuit (COM, GEN, CAP) being designed to vary the supply voltage of the efficient data processing part ( $\mu$ CE) in order to secure the 20 said confidential data against current attacks.